CLAIMS

	I Claim:	J
1	1.	A disinfecting air filter comprising:
2	on an	inlet side an iodinating layer comprising an air permeable
3		material impregnated with elemental iodine; and
4	on an	outlet side an iodine capture layer comprising a sufficient
5		thickness of porous polyvinyl acetal polymer to bind
6		substantially all of the iodine vapors passing through.
1	2.	The disinfecting air filter of Claim 1 further comprising a
2	particulate capturing	g layer disposed between the iodinating layer and the iodine
3	capture layer.	·
1	3.	The disinfecting air filter of Claim 2, wherein the particulate
2	capturing layer com	prises a HEPA filter.
1	4.	The disinfecting air filter of Claim 1 further comprising a
2	protective layer on t	he inlet side of the iodinating layer.

The disinfecting air filter of Claim 1 further comprising a



1

2

5.

protective layer on the outlet side of the iodine capture layer.

1	The disinfecting air filter of Claim 5 further comprising a
2	visual indicator of saturation of the iodine capture layer.
1	7. The disinfecting air filter of Claim 1, wherein the iodine
2	capture layer further comprises a humidifying agent.
1	8. The disinfecting air filter of Claim 7, wherein the humidifying
2	agent is selected from the group consisting of polyethylene glycol, propylene
3	glycol, ethylene glycol, and glycerol.
1	9. A disinfecting air filter comprising:
2	on an inlet side an iodinating/layer comprising an air permeable
3	material impregnated with elemental iodine; and
4	on an outlet side an iodine/capture layer comprising a sufficient
5	thickness of an iodine-binding material to bind substantially
6	all of the iodine vapors passing through.
1	10. The disinfecting air filter of Claim 9, wherein the iodine-
2	binding material is selected from the group consisting of anion exchange resin,
3	ion exchange cellulose and poly vinyl acetal polymer.
1	11. The disinfecting air filter of Claim 9, wherein the iodine-
2	binding material is selected from the group consisting of anion exchange resin,
3	ion exchange cellulose and poly vinyl acetal polymer.



3

- 1 12. The disinfecting air filter of Claim 11, wherein the anion 2 exchange resin is selected from the group consisting of derivatized polystyrene, 3 derivatized cross-linked dextran polymer and derivatized agarose polymer.
- 1 13. The disinfecting air filter of Claim 9, wherein the particulate 2 capturing layer comprises a HEPA filter.
- 1 14. The disinfecting air filter of Claim 9 further comprising a 2 protective layer on the inlet side of the iodinating layer.
- 1 15. The disinfecting air filter of Claim 9 further comprising a 2 protective layer on the outlet side of the iodine capture layer.
- 1 16. The disinfecting air filter of Claim 9 further comprising a visual indicator of saturation of the iodine capture layer.
- 1 The disinfecting air filter of Claim 9, wherein the iodine 2 capture layer further comprises a humidifying agent.
- 1 18. The disinfecting air filter of Claim 17, wherein the 2 humidifying agent is selected from the group consisting of polyethylene glycol, 3 propylene glycol, ethylene glycol, and glycerol.
- 1 19. The disinfecting air filter of Claim 9, wherein the filter forms a 2 surgical mask.



1 20. The disinfecting air filter of Claim 9, wherein the filter forms a

2 vacuum cleaner bag.

All p

